

WHAT IS CLAIMED IS:

1. A method for managing a multicast session in a communication system, comprising the step of:

using a multi-channel flow treatment protocol (MCFTP) statement to manage a multicast session information flow.

2. The method of claim 1, wherein the using step includes requesting connection to said multicast session with said MCFTP statement.

3. The method of claim 2, wherein the MCFTP statement includes an indication of the type of communication channel to be used.

4. The method of claim 3, wherein the indication of the type of channel specifies a radio broadcast channel.

5. The method of claim 3, wherein the indication of the type of channel specifies a dedicated radio channel.

6. The method of claim 5, wherein the dedicated radio channel is dedicated to a particular mobile station (MS).

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7. The method of claim 6, wherein the MS is a mobile telephone and the multicast service is provided using Internet protocol (IP).

8. The method of claim 1, wherein the using step includes identifying said multicast session information flow with said MCFTP statement.

9. A method for managing a multicast session in a communication system, comprising the steps of:

generating a first multicast flow identifier that is used to select one of many available multicast session information flows;

generating a second multicast flow identifier, smaller than the first multicast flow identifier, that is used to select one of many available multicast session information flows; and

establishing an inter-relationship between the first multicast flow identifier and the second flow identifier.

10. The method of claim 9, wherein the first multicast flow identifier is globally unique and the second multicast flow identifier is locally unique.

11. The method of claim 10, further comprising the steps of:

generating a set of radio parameters to establish a communication channel; and

mapping the second multicast flow identifier to the set of radio parameters.

12. The method of claim 11, wherein a router generates the first multicast flow identifier and the second multicast flow identifier, and establishes their inter-relationship, and a base station (BS) generates the set of radio parameters.

13. The method of claim 12, further comprising the steps of:  
storing the inter-relationship between the first multicast flow identifier and the second flow identifier in the BS;  
sending the mapping of the second multicast flow identifier to the set of radio parameters to a MS; and  
sending the second multicast flow identifier to an MS requesting receipt of the multicast flow.

14. The method of claim 13, wherein the first identifier determines that only a single transmission of the multicast flow is sent over a radio broadcast channel even though multiple routers have respective MSs requesting the same multicast flow.

15. The method of claim 14, wherein the second identifier determines that the MS continues to receive the multicast flow after transitioning from a connection with a first BS to a connection with a second BS where the multicast flow is routed through the same router.

16. The method of claim 15, wherein the routers are packet data serving nodes (PDSNs) and the multicast service is provided using internet protocol (IP).

17. The method of claim 13, further comprising the step of:

sending multicast filter information from the MS to the router using a multichannel flow treatment protocol (MCFTP) message, wherein multicast filter information is used to generate the first identifier.

18. A communication system for managing a multicast session, comprising:

a router configured to generate a first multicast flow identifier that is used to select one of many available multicast session information flows and generate a second multicast flow identifier, smaller than the first multicast flow identifier, that is used to select one of many available multicast session information flows.

19. The system of claim 18, wherein the router establishes an inter-relationship between the first multicast flow identifier and the second flow identifier.

20. The system of claim 19, wherein the first multicast flow identifier is globally unique and the second multicast flow identifier is locally unique.

21. The system of claim 20, further comprising:

a BS that generates a set of radio parameters to establish a communication channel and maps the second multicast flow identifier to the set of radio parameters.

22. The system of claim 21, wherein the system is configured to store the inter-relationship between the first multicast flow identifier and the second flow identifier in the BS.

23. The system of claim 22, wherein the BS sends the mapping of the second multicast flow identifier to the set of radio parameters to a MS, and the router sends the second multicast flow identifier to the MS in a MCFTP statement.

24. The system of claim 23, wherein the first identifier determines that only a single transmission of the multicast flow is sent over a radio broadcast channel even though multiple routers have respective MSs requesting the same multicast flow.

25. The system of claim 24, wherein the second identifier determines that the MS continues to receive the multicast flow after transitioning from a connection with a first BS to a connection with a second BS where the multicast flow is routed through the same router.

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26. The system of claim 25, wherein the routers are packet data serving nodes (PDSNs) and the multicast service is provided using internet protocol (IP).

27. An IP multicast service, comprising:

a router configured to generate a first multicast flow identifier that is used to select one of many available multicast session information flows and generate a second multicast flow identifier, smaller than the first multicast flow identifier, that is used to select one of many available multicast session information flows;

a base station coupled to the router, the BS stores the inter-relationship between the first multicast flow identifier and the second flow identifier and generates a set of radio parameters to establish a communication channel and maps the second multicast flow identifier to the set of radio parameters; and

a mobile station coupled to the base station that selects one of the many available multicast session information flows, receives the second multicast flow identifier from the router, receives the radio parameters from the BS, and tunes into the selected multicast session using the radio parameters.

28. The service of claim 27, wherein the router establishes an inter-relationship between the first multicast flow identifier and the second flow identifier.

29. The service of claim 28, wherein the first multicast flow identifier is globally unique and the second multicast flow identifier is locally unique.

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30. The service of claim 29, wherein the BS sends the mapping of the second multicast flow identifier to the set of radio parameters to the MS, and the router sends the second multicast flow identifier to the MS in a MCFTP statement.

31. The service of claim 30, wherein the first identifier determines that only a single transmission of the multicast flow is sent over a radio broadcast channel even though multiple routers have respective MSs requesting the same multicast flow.

32. The service of claim 31, wherein the second identifier determines that the MS continues to receive the multicast flow after transitioning from a connection with a first BS to a connection with a second BS where the multicast flow is routed through the same router.

33. The service of claim 32, wherein the routers are packet data serving nodes (PDSNs).

34. The service of claim 27, wherein the IP multicast service is provided by the BS over a radio broadcast channel in response to a request from the MS.

35. The service of claim 27, wherein the IP multicast service is provided by a BS over a dedicated radio channel in response to a request from the MS.

36. The service of claim 27, wherein the IP multicast service is provided by the BS over a radio broadcast channel even though the MS requests a dedicated radio channel.

37. The service of claim 27, wherein the IP multicast service is provided by the BS over a dedicated radio channel even though the MS requests a broadcast radio channel.

38. A communication system for managing a multicast session, comprising:

a router configured to generate a first multicast flow identifier that is globally unique and used to select one of many available multicast session information flows.

39. The system of claim 38, further comprising:

a BS that generates a set of radio parameters to establish a communication channel and maps the first multicast flow identifier to the set of radio parameters.

40. The system of claim 39, wherein the BS sends the mapping of the first multicast flow identifier to the set of radio parameters to a MS, and the router sends the first multicast flow identifier to the MS in a MCFTP statement.



41. The system of claim 40, wherein router receives multicast filter information in a MCFTP message sent from the MS, and the multicast filter information is used to generate the first identifier.

42. The system of claim 39, wherein the router generates a locally unique second multicast flow identifier, smaller than the first multicast flow identifier, that is used to select one of many available multicast session information flows and establishes an inter-relationship between the first multicast flow identifier and the second flow identifier.

43. The system of claim 42, wherein the system is configured to store the inter-relationship between the first multicast flow identifier and the second flow identifier in the BS.

44. The system of claim 42, wherein the router sends the second multicast flow identifier to the MS in a MCFTP statement.